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ABSTRACT

In its second year of operation (1988-1989 academic year), the Electronic Writing Center (EWC) of the Union County College in Cranford, New Jersey has expanded its capabilities and the amount of service it provides to at-risk students through the Computers in the Curricula Project. Major changes include: (1) increased numbers of classes and individual students using the computer network; (2) expansion of facilities to include the networking of more than double the number of microcomputers compared to the first year of the program; (3) addition of a backup memory storage system; (4) addition of a modem to allow exchange of student files with other networks; and (5) increased effort at data gathering and evaluation. Instructors using the network to teach writing note that the network has become more of an ordinary part of the curriculum and is now taken for granted. (Appendixes include a checklist for computer tutors, an AppleWorks manual, and evaluation instruments for writing attitudes, computer attitudes, and project involvement.) (RS)

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A COMPUTER-BASED NETWORK FOR WRITING PROCESS INSTRUCTION OF AT-RISK COMMUNITY COLLEGE STUDENTS: A SECOND YEAR EVALUATION

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Ernest Balajthy

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Outline:

Description of the Project

Evaluation: Descriptions and Suggestions

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Appendix E: AppleWorks Manual

The Computers in the Curricula Project at Union County College, Cranford, New Jersey, was initially funded by a state grant and college institutional support in 1987. The purpose of the project has been to establish computer-based networks which can be used to improve the writing ability of at-risk students at the college, many of whom are minority students from low socioeconomic status backgrounds.

During its first year of operation, the 1987-1988 academic year, the hardware included a Corvus network system and hard disk for increased memory, 21 Apple IIe microcomputers, with four ImageWriter II printers. Microcomputers were set on 6-foot tables in the Electronic Writing Center, two computers per table, allowing room for students' book and papers. A nearby laboratory of isolated Apple IIe microcomputers, in existence prior to grant funding, had two additional printers.

The purpose of the present report is to critically evaluate the second year of operation of the project. A detailed evaluation of the project's first year has been submitted for publication. Pre-publication copies of the report are available from the author (Dr. Ernest Balajthy, Department of Elementary & Secondary Education & Reading, State University of New York at Geneseo, Geneseo, NY 14454).

In its second year, the Electronic Writing Center has expanded its capabilities and the amount of service it provides. Major changes include:

1. Increased numbers of classes and students using

the center

2. Expansion of facilities to include the networking of more than double the number of microcomputers
3. A backup memory storage system
4. Addition of a modem to allow exchange of student files between Rutgers University and UCC, using the New Jersey Center for the Study of Writing Bulletin Board
5. Increased effort at data gathering and evaluation

Hardware Issues

Description

Most major changes in hardware facilities were delayed until the end of the Spring, 1989, semester. These changes included expansion of the facilities with the addition of a second network linking 27 Apple IIe microcomputers, all of which are located on the same floor of the college library as the Electronic Writing Center (the original network). The second network will be used primarily for independent student work rather than class instruction. It will be read-only, in that software can be accessed from the network storage device but no files can be stored on the hard disk by students. The mathematics and foreign language software will be stored on this new network.

In addition, two Apple IIe's will be located outside the EWC, but will be tied into the EWC network. This will allow students to use the EWC network for independent work while a

class session is being held in the EWC.

A large-screen video display unit has been purchased for the EWC. This will allow whole-class discussion of a composition on-line. Original plans were to use the network by having each student access the same composition on his or her own microcomputer. This has proved time-inefficient. Instructors estimate it takes 15 minutes of lost class time to carry out that operation.

An Uninterrupted Power Supply has been purchased for the EWC. In the event of a power outage, the power supply will give a class 15 minutes of power to shut down operations. In the first half of the Spring semester, 1989, two separate power outages occurred. Each created problems that kept the network inoperative for one week. Down-time of the network was the single most frequent complaint from instructors, who reasonably pointed out that they were reluctant to plan use of the network due to frequency of down-time.

A modem has been purchased to allow transfer of student composition files between UCC and similar classes at Rutgers University. Plans are to use the New Jersey Center for the Study of Writing bulletin board as a central storage device. Actual transfer of files will be carried out by the EWC staff, to avoid confusing instructors and students with still yet another complex and time-consuming computer operation.

Suggestions

1. Instructors may be discouraged from using the EWC if class size is larger than the number of microcomputers available. Additional funding for purchase of several more microcomputers to accommodate larger classes would be helpful.

In certain circumstances, it may be beneficial to divide a large class in half and give each group an EWC session separately. One efficient method might be to use computer experience as the grouping criterion, with experienced students in one group and inexperienced students in another.

2. Enough copies of AppleWorks should be readily available, if the network should go down. This would allow the computer technician to boot up each Apple IIe to use independently of the network, so that class could proceed somewhat normally.

3. In my understanding of the copyright laws, UCC would be able to use disk copies of software such as AppleWorks, while keeping the originals in a secure location. This policy should be implemented for software security purposes.

4. A large-screen video display unit should be available to instructors to be used in the regular classroom areas. This would allow instructors to project compositions for class discussion without occupying the EWC, thereby leaving it available for independent student use.

5. Additional modems may be purchased at some point for use on the other campuses of UCC. This would allow instructors who commute between campuses to access the EWC from another campus in order to prepare lessons. Priority of this purchase would depend

on the number of such instructors.

6. Purchase of a Macintosh computer, laser printer, and appropriate software would allow development of sophisticated desktop publishing capabilities. The Macintosh must be equipped with software and hardware capable of reformatting AppleWorks files for use with its own software.

Student Use

Description

12 classes, consisting of some 240 students, have used the EWC in each of the Fall, 1988, and Spring, 1989, semesters. This represents service to a total of some 480 students and 8 instructors, a sizable increase over the previous year. Scheduling of classes has not yet created a problem. Most instructors use the lab with a frequency that varies from once per week to once per month.

Suggestions

At this point, instructors have to clear independently working students out of the EWC themselves in order to hold class in the EWC. This results in frustrating delays. Since a computer technician is available at all times, part of his or her responsibilities should be to give all students in the EWC a 15 minute warning when a class has been scheduled to use the center. Then, 5 minutes before class, he or she should make sure all

students have left.

Staffing

A computer technician is present in the EWC during the school day to answer questions. His or her responsibilities include adding and erasing class files and helping instructors and students on technical matters. An Incident Log is kept in the center for reports on problems, and it is the technician's job to respond to these reports.

A checklist of minimum technical qualifications for Student Computer Tutors has been developed (see Appendix A). This will serve as a guideline for training.

Instructional Faculty

Description

In the Evaluation Report of the UCC EWC, 1987-1988, one of the strengths highlighted was the time and effort given to inservicing of instructional faculty. The released time for instructors to study the network system and to modify class plans was of special value.

Previous inservicing has been valuable in several ways:

1. Instructors were enthused about the educational potential of the project. This enthusiasm was crucial in providing motivation for the increased

efforts necessary for integration of networking technology into existing courses.

2. Instructors were given a basic familiarity with the technical aspects of word processing and the Corvus network
3. Instructors were provided an introduction to some teaching methods employing use of word processors (such as Blind Writing and Scaffolding).

It seems apparent that a second phase of inservice help is a present need. Interviews of the instructional faculty by the Project Evaluator indicated four major sources of concern:

1. Desire for increased assurance with the technical aspects of the network
2. Desire to clarify the central purpose of the networking system
3. Need for up-to-date information on research and development pertaining to Computer Aided Writing
4. Desire to develop practical plans for implementing use of the network in coursework.

Suggestions

A more extensive inservice experience than has been carried out previously is appropriate at this point. This could be carried out periodically over the course of the semester, or as a one-to-two week intensive workshop course. Some 20 hours of lecture/discussion and 20 hours of small group/lab work would be optimal.

Goal one: Assurance with technical aspects of the network. Instructors need supervised experience in which they carry out operations using the network. This might best be organized in a series of experiences in which they engage in the writing process as a group, simulating the experiences through which they will guide their own students. The writing process component might serve as the central focus of the inservice experience, tying the other major goals together.

Goal two: Clarity of purpose of the networking system. The purpose of the network is to aid in the development of an authoring environment in each class, as highlighted in the work of such theorists as Janet Emig, Dorothy Watson, Donald Graves, and Lucy McCormick Calkins. Instructors should use the network to create a "community of authors," employing collaborative learning procedures. Two important topics should be covered in relation to this goal:

a. Methods and principles of collaborative learning for peer revising and editing in classrooms. This should emphasize classroom management and planning of instruction.

b. Methods and principles of achieving a "community of authors" in a developmental writing classroom. This should emphasize classroom management and planning for structuring an "authoring environment."

This component of the inservice should avoid the extreme of prescription: That is, telling the faculty the "right way" to do

things. There is no one "right way." Sufficient time and effort should be allowed for critical thinking and discussion on the part of the faculty, as they examine the methods being presented in the light of both their own students' needs and their own educational philosophies and methods.

Goal three: Up-to-date information on research and development. This component of the inservice should focus on three major topics:

1. Findings of research on Computer Aided Writing. As Roblyer, Castine and King (1988) point out, research on CAW has increased in intensity in the past few years. Most research has been directed to analysis of the effects of word processing technology on classroom learning, an appropriate topic for the UCC project.
2. Computer Aided Writing methodology. Researchers (such as Helen Schwartz and Colette Daiute) and commercial developers have recently provided guidelines and methods for using word processing technology for instructional purposes.
3. Adjunct aids for Computer Aided Writing. These include practical suggestions and experience in working with the following:
    a. Keyboarding software
    b. Desktop publishing
    c. Grammar/style checkers
    d. Spelling checkers

e. Writing process software packages

f. Prewriting planning software

Goal four: Development of practical plans for implementation of the network. Faculty will need time for development of revised course outlines for more practical implementation of the networking methodology. This time should be structured to include the following:

1. Discussion/brainstorming in small groups
2. Independent time for writing revised course outlines, preferably using the EWC itself so as to become more familiar with its technical operation
3. Individual consulting time with the inservice provider, to discuss issues of particular concern.

The objectives and methods developed in this component can serve as the focus for the following year's project evaluation report.

Some topics to be included in this component are:

1. Scheduling of assignments. In the evaluative interviews, one faculty member noted that students had difficulty finding time to get to the EWC in between the tightly packed assignments. Schedules for assignments might be modified to allow more time by overlapping composition projects, for instance.
2. Increased use of the student computer tutors for feedback on compositions. Instructors who use the tutors seemed to value their input highly.
3. Investigating applications appropriate at

varied ability levels. One instructor noted that the word processing component was not as valuable with the lowest level developmental students.

Conclusion

The UCC EWC's second year has seen extension of access to more classes and more students. Instructors heavily involved in using the network last year have noted that the network no longer seems special--it has instead become more of an ordinary part of the curriculum and is taken for granted. Certainly that reaction denotes a high degree of success.

Appendix A: Checklist for Computer Tutors

_____
Tutor's Name

Checklist for Computer Tutors

A propsective peer tutor should be able to perform the following tasks in order to qualify as a computer tutor in the Academic Learning Center.

_____ 1. initialize a disk

_____ 2. retrieve files (from floppy and hard disks)

_____ 3. switch drives (e.g. from Disk 1 Slot 6 to Disk 2, Slot 7)

_____ 4. add, save, print, and remove files

_____ 5. know the important commands in the Appleworks Options menu, such as:

A. center

B. double space

C. justify/unjustify

D. number pages

E. underline text

_____ 6. delete text

_____ 7. move text within a document on the clipboard

_____ 8. use the printer options menu

_____ 9. use program ancillary to word processing

A. spell checker

B. word count

C. grammar check

D. keyboarding

_____ 10. insert paper into the printers

_____ 11. change printer ribbons

_____ 12. teach a class (at the instructor's request in the basic of Appleworks during its first session in the Electronic Writing Center

Appendix B: Evaluation Instrument for Writing Attitudes

Name _____ Location: UCC Project Disk, 1988-1989

Instructions: In the left margin next to each statement, write one of the following numbers to indicate the strength of your agreement or disagreement with it:

1 -- Almost never
2 -- Seldom
3 -- Sometimes
4 -- Often
5 -- Almost always

1. I write letters to my family and friends.

2. On my own, I write stories, plays, or poems.

3. I voluntarily reread and revise what I've written.

4. When I have free time, I prefer writing to being with friends.

5. I prefer topics I choose myself to ones the teacher gives.

6. On the whole, I like school.

7. I use writing to help me study and learn new subjects.

8. Girls enjoy writing more than boys do.

9. I like what I write.

10. Writing is a very important way for me to express my feelings.

11. Doing workbook exercises helps me improve my writing.

12. A student who writes well gets better grades in many subjects than someone who doesn't.

13. When I have free time, I prefer writing to reading.

14. I do school writing assignments as fast as I can.

15. I get better grades on topics I choose myself than on those the teachers assign.

16. I have written for a school newspaper, literary magazine, or yearbook.

17. I voluntarily keep notes for school courses.

18. When I have free time, I prefer writing to sports, games, or hobbies.

19. I leave notes for my family and friends.

20. The teacher is the most important audience for what I write in school.

21. Students need to plan in writing for school themes.

22. When I have free time, I prefer writing to watching television.

23. I write better than I speak.

24. Good writers spend more time revising than poor writers.

25. I accept positions in groups that involve writing.

26. I write better than I read.

27. I spend more time on a piece of writing I do outside school than one I do as an assignment.

28. Studying grammar helps me improve my writing.

29. I'd rather write than study literature.

30. I share what I write for school with family and friends.

31. I write public figures like my Congressman or Mayor.

32. I write graffiti.

33. In class, I share what I write with other members of the class.

34. When I have free time, I prefer writing to listening to music.

35. Teachers give poor grades to papers that have misspellings.

36. Writing for others is more important than expressing myself.

37. I can put off doing assigned writing until the last minute and still get a good grade.

38. I must learn to write a good paragraph before I can write an entire theme.

39. I keep a journal or diary.

40. I prefer writing to dramatics in English class.

Appendix C: Evaluation Instrument for Computer Attitudes

Name _____ Located on UCC Project Disk, 1988-1989

Directions: This scale measures how you feel about writing class in school. Read each statement and decide how you feel about it. Rate each statement on a scale of 1 to 4, as follows:

4 will mean "I strongly agree"
3 will mean "I agree"
2 will mean "I disagree"
1 will mean "I strongly disagree"

Write each answer in the margin on the left.

1. Computers do not scare me at all.

2. I'm no good with computers.

3. I would like working with computers.

4. Working with a computer would make me very nervous.

5. Generally, I would feel OK about trying a new problem on the computer.

6. The challenge of solving problems with computers does not appeal to me.

7. I do not feel threatened when others talk about computers.

8. I don't think I would do advanced computer work.

9. I think working with computers would be enjoyable and stimulating.

10. It wouldn't bother me at all to take computer courses.

11. I am sure I could do work with computers.

12. Figuring out computer problems does not appeal to me.

13. Computers make me feel uncomfortable.

14. I'm not the type to do well with computers.

15. When there is a problem with a computer that I can't immediately solve, I would stick with it until I have the answer.

16. I would feel at ease in a computer class.

17. I am sure I could learn a computer language.

18. I don't understand how some people can spend so much time working with computers and seem to enjoy it.

19. I get a sinking feeling when I think of trying to use a computer.

20. I think using a computer would be very hard for me.

21. Once I start to work with the computer, I would find it hard to stop.

22. I would feel comfortable working with a computer.

23. I could get good grades in computer courses.

24. I will do as little work with computers as possible.

25. Computers make me feel uneasy and confused.

26. I do not think I could handle a computer course.

27. If a problem is left unsolved in a computer class, I would continue to think about it afterward.

28. I have a lot of self-confidence when it comes to working with computers.

29. I do not enjoy talking with others about computers.

Appendix D: Evaluation Instrument for Project Involvement

From UCC Project Disk,
1988-1989

Name _____

Course _____

Did using the computer help you to learn to write better? In what ways?

Did you enjoy the computer component of this course? What did you like best about it?

What did you enjoy the least about using computers in this course?

What suggestions would you make for improvements in the use of computers in this course?

Appendix E: AppleWorks Manual

AppleWorks Manual

Created by
Sadiq Qureshi
Paul C. Aviles
Jeanne Cimillo

Introduction

This manual will enable you to use the 'AppleWorks' program. Please bear with this manual for it is designed to help you, not frustrate you. Although, it may be long, but it is necessary that you read and understand this manual to be able to successfully use AppleWorks. If there is something you do not understand, the tutors are here to help you.

-The Computer Room

-The Disk

-Getting Started

-Creating a File

-How to Center and Underline

-Spellcheck and Other Applications

-Appendix of Helpful Commands

-Printer Options

The Computer Room

The Corvus room, was created last year to meet the demanding needs of the student body and as our already large facility proved to be too busy. There are a few rules that need to be obeyed during the time it is being used;

- No Food or beverages are permitted in the room.

-Do not turn the computer on/off during your use or you will loose all of your information.

-If, while using the computer, a problems arises bring it to the attention of the tutor on duty. DO NOT ATTEMPT TO SOLVE THE PROBLEM YOURSELF !

-This room is in the library, and there are other students using the room, so please keep talking to a minimum.

-Please throw away all of your garbage, the room at end of the day can become messy and cluttered. YOUR HELP WILL BE GREATLY APPRECIATED AND WILL ONLY INCREASE THE TUTORS EFFICIENCY IN HELPING YOU.

-Please keep all your belongings with you. The tutors are not responsible for any materials left unattended.

Hope you have a nice time working with the computer. Regard it as a friend and it will do the same for you. Remember, the computer is only a machine, capable of doing only the things you ask it to do.

Thank You !!!!!!

The Disk ???

While you are working with the computer you can save all of your work on a single 5 1/4 inch floppy disk. The disk itself is a magnetic disk encased in a plastic cover to protect it from the elements. There are a few basic rules that will allow your disk to live a longer and healthier life:

1. Do not touch the shiny parts
Don't touch it with anything. They are vulnerable to fingerprints, dust, coffee spills, cigarette ashes, sneezes, dirty looks etc. The best way to keep things from touching it is by keeping the disks in their protective covers.

2. Do not jam disks into the slots.
Ease gently into their drives, so the disk won't bend, scratch or otherwise become offended.

3. Beware of Magnetism.
The disk's memory comes from the critical arrangement of magnetic particles on its surface. Therefore, exposing the disk to any kind of magnetic field can muck up the arrangement of the particles---causing either amnesia or madness.

4. Handle like glass.
Don't bend it, sit on it, fold it, or drop things on it, or use it to prop up table legs, etc. If you do so, the disk will spite you.

5. Keep your disk comfortable.
Meaning between 50 to 100 degrees fahrenheit. For instance don't place your disk in the microwave, it will haunt you later. A simple rule is that if the temperature is comfortable for you, it is good for your disk.

Following these simple rules will keep your relationship with the disk a happy and long lasting one.

Getting Started

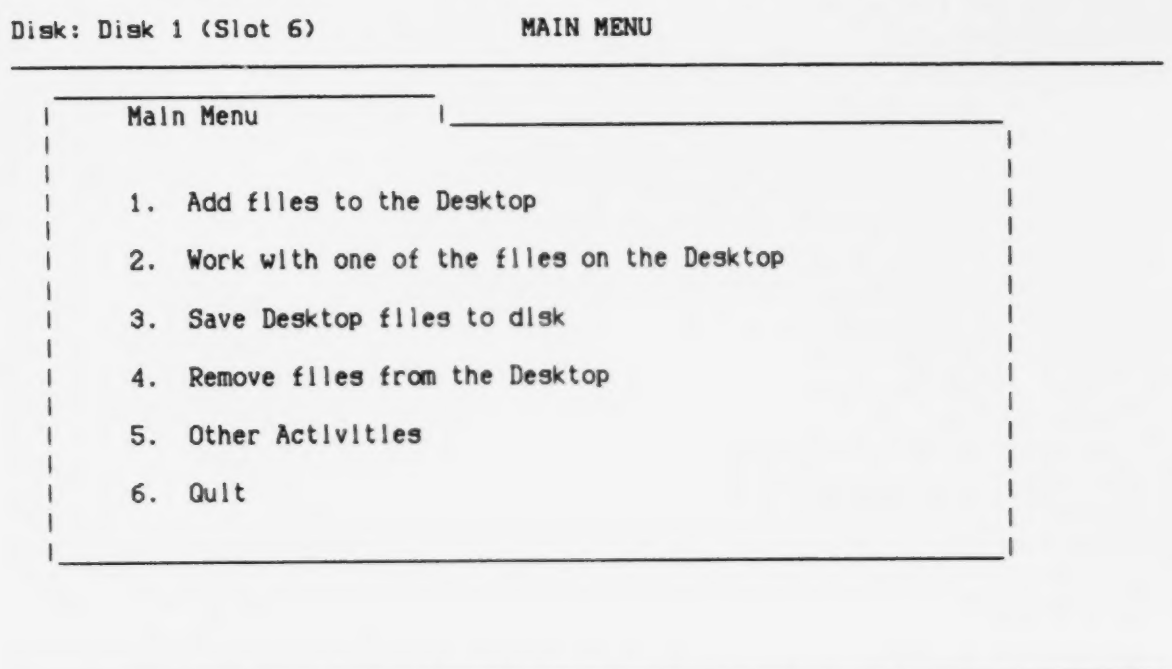
Each teacher has an account on the Corvus system. The account is further subdivided according to classes that the teacher has.

You can save your files in the account designated for you class, so that either an English tutor or your teacher can take a look at it and make comments/corrections in it before you hand in your final draft. This is an advantage to you, because you do not have to wait for the tutor to become available. Instead, the tutor looks at it whenever he or she can. However, you must inform the tutor that you want a paper corrected. It may be even possible for your teacher to comment on your paper.

OK, now comes the tricky part. How do you get into your teacher's account ? The answer is simple. You can not get into your teachers account unless you are provided with the account name, and the password that will enable you to use the program. This password and account name can only be provided by your teacher. (The tutors do not know the passwords, so do not ask them !).

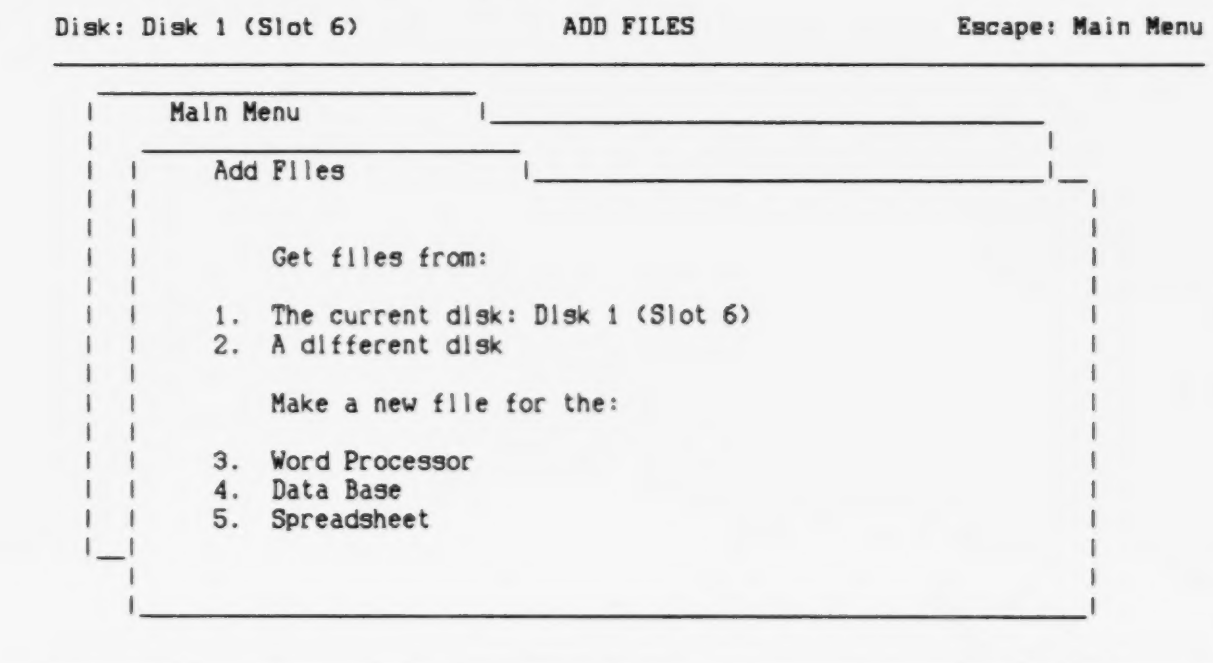
Once you have entered the account and the password, you will see dots running across the screen. Do not be scared; it is only the computer booting itself up.
Next, you will see the name of the creator of the software. At the bottom of the screen it will read: "Press Space Bar to Continue". Press the bar and you will get to a screen that says: "The date must be 1983 or later, and in this form:3/20/86". On the bottom of this screen it will read: "Type today's date or press Return". Check to see if the date is correct. If it is then press Return to accept it. The next screen will show you files available on the Timeout Menu. These will list some of the activities you can use with your files.

Having hit return you will get to a screen which looks like this:

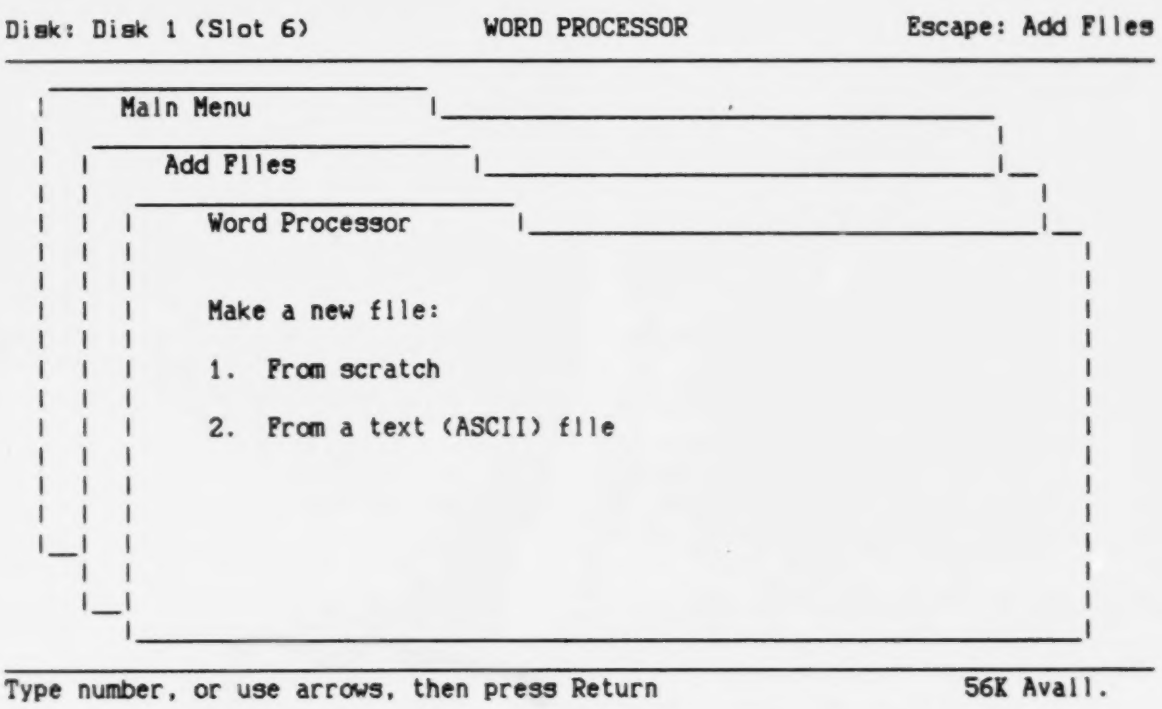

Disk: Disk 1 (Slot 6)
MAIN MENU
Main Menu
1. Add files to the Desktop
2. Work with one of the files on the Desktop
3. Save Desktop files to disk
4. Remove files from the Desktop
5. Other Activities
6. Quit
Type number, or use arrows, then press Return
?-? for Help

CREATING A FILE

Choose number 1, from the main menu. This will bring you to the following screen:



Since you are creating a new Word Processor file bring the cursor down to "Word Processor". Once you have done that you will get to a screen which looks like this:



Select "From scratch," because you are beginning a new file, it will next ask you to name the file. Choose a name, it could be anything ranging from your pet name to the title of the paper, as long as it is 15 characters maximum. Hit return and you are ready to begin writing your paper.

How to Center and Underline

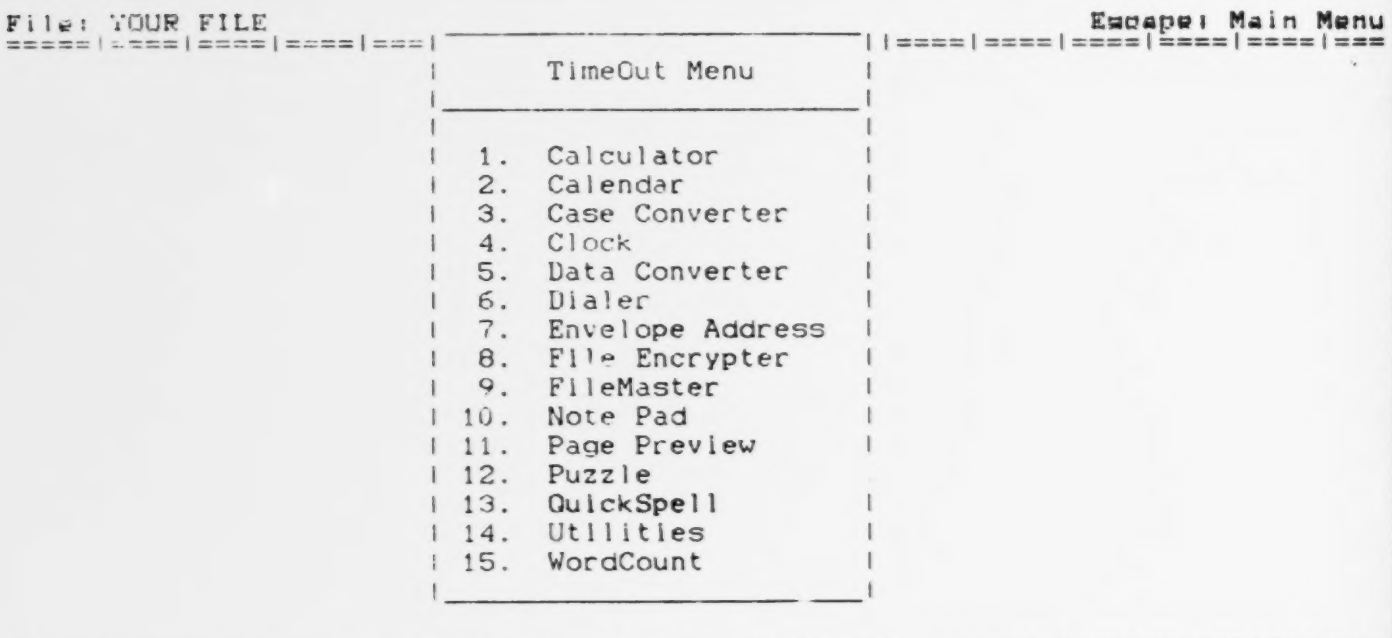
To center, you first must put the cursor where you want the computer to begin centering. Next, use the Open-Apple "O" key in combination with the "O" key to get to the options menu. Select "cn" standing for centering and hit the return key. Escape out of the options menu, type what you want centered. You must again go back to the option menu after centering and use the uj or ju option, whichever you selected in the beginning. If you neglect to do this your entire paper will be centered. Remember, that the computer can only do what you command it to do.

To underline you use the Control key in combination with the "L" key. It is important to note that repeating the command cancels it. Control-L starts underlining and Control-L ends it.

If you want someone to pay special attention to a word or a phrase, you might want to use the Control key in combination with the "B" key. This command tells the computer to start printing in boldface (a dark heavy print). As with the Control-L key, the repeat use of this command cancels it. Control-B starts boldface and Control-B will end it.

Spellcheck and Other Applications

For your convenience the Corvus system offers you the ability to check your spellings and count the number of words that you have in one particular document. To be able to use this utility you must first have your document saved on a disk, then press the Open-Apple and the Escape key together to obtain a screen that looks like this:



From this screen you may either choose number 13(QuickSpell) or number 15(WordCount). Once you have chosen either of these, hit return to accept and you are well on your way.

The "WordCount" immediately tells you how many words you have in your document. The "QuickSpell" on the other hand recquires some input on your part. It might tell you that a name like "Sadiq" is wrong, because the dictionary does not contain any names. So a little manipulation is recquired.

You might want to ignore correcting a word if it is used in a different context than in the dictionary. You also might want to get a suggestion on a spelling of a word that you don't know how to spell. The computer automatically replaces your mistake with the correct word. The "QuickSpell" continues this process throughout your document. The result being an improved paper.

Appendix of Helpful Commands

Token = a symbol that appears on the screen, to indicate the position of a command.

Control-B= Heavy dark letters will be printed out from the beginning token position to the end token position.

Control-L= This will underline text.

Open Apple-K= This will calculate the pages the writing will take up.

Open Apple-D= This will delete lines at which the cursor is positioned.

Delete= This will delete letters or words.

Open Apple-?= This will automatically display help options for the area in which you are working.

Open Apple-M= This will move lines, paragraphs, or pages to positions you wish them to be.

Open Apple-P= This will print your text.

Open Apple-1 to 9= This will move your cursor within the text, the beginning with (1), the end with (9).

Open Apple-S= This will save the text on the current disk or directory.

Open Apple-Z= This will zoom into to display format settings on screen.

Before giving a command, you must position the cursor at the spot which you wish the computer to carry out a particular function. For example: If you wanted to center a heading. You would move the cursor to the line where the heading is going to appear. Then press the appropriate command. Followed by return.

If you wish to change a command then you would follow the same procedure outlined in the previous paragraph.